



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,861	03/24/2004	Leonard Edward Bogan JR.	A01226A	6668

21898 7590 09/29/2004

ROHM AND HAAS COMPANY  
PATENT DEPARTMENT  
100 INDEPENDENCE MALL WEST  
PHILADELPHIA, PA 19106-2399

EXAMINER
----------

PUTTLITZ, KARL J

ART UNIT	PAPER NUMBER
----------	--------------

1621

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/808,861

Applicant(s)

BOGAN ET AL.

Examiner

Karl J. Puttlitz

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7,8,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/24/2004.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 7, drawn to a catalyst classified in class 502 subclass various subclasses.
- II. Claims 8, 12 and 13 drawn to methods of producing a nitrile classified in class 558 subclass 303+.

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process can be practiced with other catalysts, for example, those disclosed in the background section of the specification.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Marcella Bodner on September 23, 2004 a provisional election was made with traverse to prosecute the invention of Group II claims 8 12, and 13. Affirmation of this election must be made by applicant in replying to this Office action. Claim 7 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Priority***

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

Applicant is required to update this information with relevant information.

### **Arrangement of the Specification**

Applicant is requested to conform the Specification to the requirements set forth in M.P.E.P. § 608.01(a) and 37 C.F.R. 1.77 for arrangement of applications. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,281,745 to Ushikobu et al. (Ushikobu) in view of U.S. Patent No. 4,866,195 to Brazdil et al. (Brazdil).

The claims are drawn to, inter alia, a process for producing an unsaturated nitrile which comprises subjecting an alkane, or a mixture of an alkane and an alkene, and ammonia to a vapor phase catalytic oxidation reaction in the presence of a catalyst produced by the process comprising providing a mixed metal oxide (see formula in claim 8) and contacting said mixed metal oxide with a liquid contact member selected from the group consisting of organic acids, alcohols, inorganic acids and hydrogen peroxide to form a contact mixture, recovering insoluble material from said contact

Art Unit: 1621

mixture, and calcining said recovered insoluble material in a non-oxidizing atmosphere to form said catalyst.

Ushikobu teaches a process for producing a nitrile, which comprises subjecting an alkane and ammonia in the gaseous state to catalytic oxidation in the presence of a catalyst. Example 1 of this patent teaches preparation of the following catalyst:



Ushikobu fails to explicitly teach the required step of contacting said mixed metal oxide with a liquid contact member selected from the group consisting of organic acids alcohols, inorganic acids and hydrogen peroxide. It is for this proposition that the examiner joins Bradzil.

Bradzil teaches the ammoxidation of isobutane to methacrylonitrile and, especially, of propane to acrylonitrile. Notwithstanding the fact that Bradzil teaches catalyst other than those covered by the rejected claims, Bradzil teaches that catalyst compositions are conveniently prepared by slurry techniques wherein an aqueous slurry containing all of the elements in the objective catalyst is produced. Importantly, liquids other than water, such as alcohols can also be used to form the precatalyst slurry. Therefore, Bradzil teaches that mixed metal oxide material can be contacted with alcohols prior to calcinations. Therefore, this step is within the motivation of those of ordinary skill, because Bradzil teaches that this step is conventional in the slurry process. Accordingly, the rejected claims are prima facie obvious in view of the combination of Ushikobu and Bradzil since these references teach the elements of the rejected claims with a reasonable expectation of success.

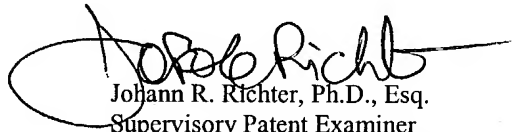
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl J. Puttlitz whose telephone number is (571) 272-0645. The examiner can normally be reached on Monday-Friday (alternate).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Karl J. Puttlitz  
Assistant Examiner



Johann R. Richter, Ph.D., Esq.  
Supervisory Patent Examiner  
Biotechnology and Organic Chemistry  
Art Unit 1621  
(571) 272-0646